

**REMARKS**

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The final Office Action dated August 9, 2005 has been received and its contents carefully reviewed.

Claims 1-30 are currently pending. Reexamination and reconsideration of the pending claims is respectfully requested.

In the Office Action, claims 1-5, 7-19, and 23-30 are rejected under claims are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,215,541 to Song ("Song") in view of U.S. Patent No. 6,184,947 to Ozaki ("Ozaki"). Claims 6 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Song in view of Ozaki, and further in view of U.S. Patent No. 6,307,216 to Huh ("Huh").

The rejection of claims 1-5, 7-19, and 23-30 is respectfully traversed and reconsideration is requested. Claims 1-5 and 7 are allowable over the cited references in that this claim recites a combination of elements including, for example, "a gate line and a thin film transistor having a gate electrode, a source electrode, a drain electrode and an active layer formed over the substrate" and "a first gate redundancy line formed on the interlayer insulating layer, and connected electrically with one of the gate electrode, the gate line, and both the gate electrode and gate line through a first gate contact hole and formed of the same material as one of the source and drain electrodes." Claims 8-13 are allowable over the cited references in that this claim recites a combination of elements including, for example, "a gate line and a thin film transistor having a gate electrode, a source electrode, a drain electrode and an active layer formed on the substrate" and "a gate redundancy line formed on the passivation layer, and connected electrically with one of the gate electrode, the gate line, and both the gate electrode and gate line through a gate contact hole and formed of the same material as the pixel electrode." Claims 14-19 and 23 are allowable over the cited references in that this claim recites a combination of elements including, for example, "forming a gate line and a gate electrode on a substrate" and "forming a first gate redundancy line on the interlayer insulating layer electrically connected with one of the gate electrode, the gate line, and both the gate electrode and gate line through a first gate contact hole." Claims 24-30 are allowable over the cited references in that

this claim recites a combination of elements including, for example, “forming a gate line and a gate electrode on a substrate” and “forming a gate contact hole in the passivation layer, and forming a gate redundancy line connected electrically with one of the gate electrode, the gate line, and both the gate electrode and gate line through the gate contact hole.” None of the cited references including Song or Ozaki, singly or in combination, teaches or suggests at least these features of the claimed invention.

In the Office Action, the Examiner identifies the transverse data line connector 64 as a first gate redundancy line and states that it is electrically connected to one of the gate electrode (21), the gate line (20), and both the gate electrode (21) and the gate line (20) through a first gate contact hole (75). Contrary to the Examiner’s assertion otherwise, the transverse data line connector 64 is not a gate redundancy line. The transverse data line connector 64 connects all of the data lines together. Further, the transverse data line connector 64 is connected to the gate line connector 24 that connects all of the gate lines together. The purpose of the transverse data line connector 64 and the gate line connector is to cause “the electrostatic charges generated during the manufacturing process to be spread over the substrates, thereby protecting thin film transistors effectively.” (See col. 4, lines 64-67.) Further, Song states: “When manufacture of the panel is completed, the wires are separated by cutting out the gate and the data line connectors 24 and 64 along the dotted line 200 in FIG. 4.” (See, col. 4, line 67 - col. 5, line 2.) The purpose of the data line connector 24 is to prevent electrostatic discharge damage to the thin film transistors during manufacture, and the data line connector 24 is removed once the panel is complete. Thus, structure identified prevents the panel from operating and is removed prior to operation of the panel. Further, the data line connector does not provide redundancy for the gate lines. Such redundancy allows for a lower resistance gate line and the gate panel to continue to operate even if there is, for example, a break in a gate line because the gate line redundancy line provides an alternative path for signals to propagate in the panel. The data line connector 24 does not provide any sort of redundancy to the gate lines. In addition, the Examiner identifies contact hole 75 as a first gate contact hole. In the claim the gate redundancy line is connected electrically with the gate line through the first gate contact hole. In Song the data line connector 64 (identified by the Examiner as the gate redundancy line) is not connected through the contact hole 75 to the gate line 20, but rather is connected electrically to the gate lines 20 through the gate line connector 24. Accordingly, Song fails to teach or suggest these features of the claimed

invention. Ozaki does not cure these deficiencies of Song. Accordingly, claims 1-5, 7-19, and 23-30 are allowable over Song and Ozaki.

Claims 6 and 20-22 depend from allowable claims 1 and 14, so are allowable over Song and Ozaki. Further, Huh does not cure the deficiencies of Song and Ozaki discussed above, therefore, claims 6 and 20-22 are allowable over, Song, Ozaki, and Huh.

Applicants believe the foregoing remarks place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

By   
Eric J. Nuss

Registration No. 40, 106  
McKENNA LONG & ALDRIDGE LLP  
1900 K Street, N.W.  
Washington, DC 20006  
(202) 496-7500  
Attorneys for Applicant